DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed **10/21/2009** have been fully considered but they are not persuasive.

2. **Claim 1** has been amended.

3. **Claims 1-9** are currently pending.

The applicant argued about the features wherein the applied prior art, Koodli, does not teach performing the Duplicate Address Detection (DAD) at the new access router, reads upon the applied art as follows;

Koodli discloses that operationally, the present invention broadly includes two operations. The first operation enables an access router to perform actions substantially similar to a duplicate address detection (DAD) before the access router grants a new address to a mobile node. The second operation enables the mobile node that has obtained information associated with a new access router and IP address to send IP packets upon capturing link-layer connectivity with the new access router subsequent to handover. Koodli discloses a process for determining an address conflict on an access router. Koodli also discloses that the process may be employed within a new access router. Koodli discloses that a packet is received from a requesting entity. The requesting entity may be a mobile node, or an access router that is involved in the mobile node's handover signaling. Koodli shows that a determination is made whether the packet is associated with a link frame type of ND_FAST_HO, or a

similar mechanism that indicates the requesting entity intends to use an unconfirmed address. If it is determined that the packet is not associated with a link frame type of ND_FAST_HO, the process does the following; Alternatively, if it is determined that the packet is associated with the link frame type of ND_FAST_HO, the process proceeds to where a search is made on the unconfirmed address. The search may be performed by examining a neighbor discovery cache region, a database location, or the like, to determine whether there already exists a corresponding entry matching the unconfirmed address. The process then proceeds to where a determination is made whether a match of the unconfirmed entry has been found. A located match indicates that the unconfirmed address is already in use, and may not be employed by the Requesting entity. If it is determined that a match is not found, and therefore the unconfirmed address is not already employed, then the link frame type is swapped from ND_FAST_HO to an IP type. By swapping the link frame type, the present invention does not incur the overhead of additional packet bytes, or messages. Therefore, additional latencies may be minimized. Next, the modified packet is routed employing the newly confirmed address. By allowing the requesting entity to employ the unconfirmed address virtually upon establishing link-layer connectivity, a delay of about two round-trip times (RTTs) over the media interface may be eliminated. Upon completion, the process returns to performing other actions as disclosed in **Col. 8:33-67, Col. 9: 1-16, Fig. 4**. Thus Koodli shows the above mentioned limitations.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yegin et al. (US 7,286,671 B2) in view of Koodli et al. (US 6,930,988 B2), hereinafter referenced as Yegin, Koodli.

Consider **claim 1**, Yegin discloses a method for performing mobile IPv6 fast handover based on an access router (AR) **(Col. 1:58-63, Fig.2, where Yegin discloses a client changing its point of attachment while maintaining access to the network in IpV6 Network)**. Yegin discloses that a) when a mobile node (MN) completes a layer 2 handover **(Col. 6:45-50, Fig. 2 elements 135 and 145 where Yegin discloses the change of radio links from an access point of FR1 to an access point of FR2, therefore a layer 2 handover)**, a new access router (AR) receiving a modified Router Solicitation (RS) message from the mobile node (MN) **(Col. 6:59-61, Fig. 2, where Yegin discloses an RS being sent to a new access router by a client)** b) detecting layer 3 movement of the mobile node (MN) at the new access router (AR) based on the received modified RS message transmitted from the mobile (MN) node to the new access router (AR) **(Col. 6:42-69, Col. 7:1-13, where Yegin discloses that the access routers send their router advertisements (RA) in response to RS from clients, and establishment of L3 movement)** c) Yegin discloses that when the mobile node does

layer 3 movement, the new access router (AR) generating a new Care of Address (CoA) for transmission to the mobile node (MN) and for use as the network interface address of the mobile node (MN) **(Col. 7:1-13, Fig. 2, where Yegin discloses the establishment of L3 movement and communication via the new access router)** e) transmitting a modified Router Advertisement (RA) message, after performing Duplicate Address Detection (DAD) at the new access router (AR), which corresponds to the modified RS message transmitted from the mobile node (MN), to the mobile node (MN) from the new access router (AR)) **(Col. 6:42-69, Col. 7:1-13, where Yegin discloses that the access routers send their router advertisements (RA) in response to RS from clients which contains CoA i.e. within the new access router coverage area, the CoA sent to the Client is unique)**; wherein the mobile node (MN) does not perform Duplicate Address Detection (DAD) after receiving the modified Router Advertisement (RA) **(Col. 6:42-69, Col. 7:1-13, where Yegin discloses that the access routers send their router advertisements (RA) in response to RS from clients which contains CoA i.e. within the new access router coverage area, the CoA sent to the Client is unique, therefore the mobile node (MN) does not perform Duplicate Address Detection (DAD))**.

Yegin discloses that the new access router sends CoA to the client in response to the RS from the clients i.e. within the new access router coverage area, the CoA sent to the Client is unique. However, Yegin does not explicitly disclose performing Duplicate Address Detection (DAD) at the new access router (AR) to inspect uniqueness of the generated CoA. Koodli discloses **(Col. 7:11-19, Fig. 4, where Koodli discloses an**

access router performing actions substantially similar to duplicate address detection (DAD), therefore inspecting uniqueness of the generated (CoA) at the new access router).

Therefore it would have been obvious to one of ordinary skills in the art at the time the invention was made to modify Yegin with the teachings of Koodli so as to avoid the handover latencies as discussed in **Col. 1:11-48**.

Consider **claim 2**, the combination teaches everything claimed as implemented above (see claim 1). In addition, Yegin specifically discloses that wherein the step a) includes the steps of: a1) receiving a re-association request message from the mobile node (MN) at an access point; and a2) transmitting a re-association reply message corresponding to the re-association request message to the mobile node (MN) from the access point **(Col. 6 lines 45-50, Fig. 2 elements 135 and 145 where Yegin discloses the change of radio links from an access point of FR1 to an access point of FR2, therefore a layer 2 handover i.e. re-association process is performed with the new access point of the new access router)**.

Consider **claim 3**, the combination teaches everything claimed as implemented above (see claim 1). In addition, Yegin specifically discloses that f) receiving the modified RA message transmitted from the access router (AR), using the CoA specified in the modified RA transmitted from the access router (AR) as a network interface address of the mobile node (MN) without DAD, and performing binding update at the mobile node (MN) **(Col. 7:1-13, Fig. 2, where Yegin discloses the establishment of L3 movement and communication via the new access router)**.

Consider **claim 4**, the combination teaches everything claimed as implemented above (see claim 1). In addition, Yegin specifically discloses wherein, in the step a), the access router (AR) receives the modified RS message from the mobile node (MN) as soon as the layer 2 handover is completed at the mobile node (MN) **(Col. 6:59-61, Fig. 2)**.

Consider **claim 5**, the combination teaches everything claimed as implemented above (see claim 4). In addition, Yegin specifically discloses wherein, the step b), the movement of the mobile node (MN) in the layer 3 is detected at the access router (AR) by comparing a neighbor cache value of the access router (AR) and a layer 2 identifier of the mobile node (MN) included in the modified RS message, which is transmitted from the mobile node (MN) **(Col. 6:63-64, where Yegin discloses that the access routers send their router advertisements (RA) in response to RS from clients)**.

5. **Claims 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yegin in view of Koodli, and further in view of Takusagawa et al. (US 2003/0225892 A1), hereinafter referenced as Taku.**

Consider **claim 6**, the combination teaches everything claimed as implemented above (see claim 5). However, the combination does not specifically teach wherein the modified RS message includes a flag which signifies the generation of the CoA (CoA Generate). Taku discloses wherein the modified RS message includes a flag which signifies the generation of the CoA (CoA Generate) **(Para 0105-0106, Fig. 11, where Taku discloses a handover initiation message to request for a new CoA)**.

Therefore it would have been obvious to one of ordinary skills in the art at the time the invention was made to modify Yegin and Koodli with the teachings of Taku so as to expedite the hand over procedure as discussed in **Para 0009**.

Consider **claim 7**, the combination teaches everything claimed as implemented above (see claim 6). In addition, Taku specifically discloses wherein the modified RA message includes a flag which signifies the generation of the CoA (CoA Generate) **(Para 0105-0106, Fig. 11, where Taku discloses a handover initiation message to request for a new CoA)**.

Consider **claim 8**, the combination teaches everything claimed as implemented above (see claim 7). In addition, Yegin specifically discloses wherein the modified RA message includes the CoA which is generated by the access router in the step c) **(Col. 6:43-67, Col. 7:1-13)**.

Consider **claim 9**, the combination teaches everything claimed as implemented above (see claim 8). In addition, Taku specifically discloses wherein the modified RA message includes a flag which signifies that the CoA is included in a prefix **(Para 0105-0106, Fig. 11, where Taku discloses a handover initiation message to request for a new CoA)**.

Conclusion

6. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BABAR SARWAR whose telephone number is (571)270-5584. The examiner can normally be reached on MONDAY TO FRIDAY 09:00 A.M -05:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, NICK CORSARO can be reached on (571)272-7876. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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